

# NGDA Lifecycle Maturity Assessment (LMA)



May 2, 2017

### 2017 LMA Team Members

### Interagency Team

- Kyle Arndt (NPS)
- Anne Ball (NOAA)
- Wendy Blake-Coleman (EPA)
- David Cackowski (US Census Bureau)
- Roger Johnson (NPS)
- Lisa McBride (Forest Service)
- Lorri Peltz-Lewis (Forest Service
- Charles Spicer (US Census Bureau)
- Douglas Vandegraft (BOEM)
- Butch Lazorchak (Library of Congress) for Archive Stage

### **Support Team**

- Jennifer Carlino (FGDC)
- Jim Irvine (ArdentMC)
- Robin Hoban (BAH)
- Bradley Macpherson (BAH)
- John Davidson (Image Matters)
- Lara Duffy (Image Matters)



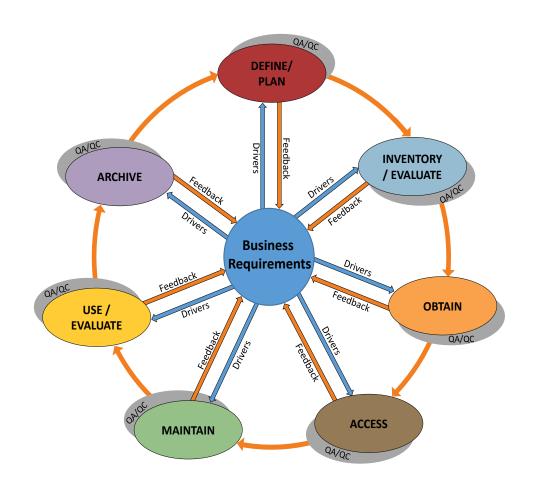
## Lifecycle Maturity Assessment-Benefits

- ❖ Fulfills OMB A-16 Supplemental Guidance requirements
  - ❖ 3.4.1. NGDA Dataset Management NGDA Dataset Managers should evaluate their NGDA Dataset(s) against the Geospatial Data Lifecycle stages in order to report on their maturity and status
- Consistent maturity metrics for all NGDA Datasets in the NGDA Portfolio to:
  - Identify opportunities where maturity can be improved
  - Describe strengths and weaknesses among NGDA Datasets and Themes
  - ❖Identify where access and discoverability can be enhanced
  - Promote collaboration among Theme strategic goals
  - Provide managers with a broad view of the status of the national geospatial portfolio



## 2017 LMA Basic Assumptions- Lifecycle Stages

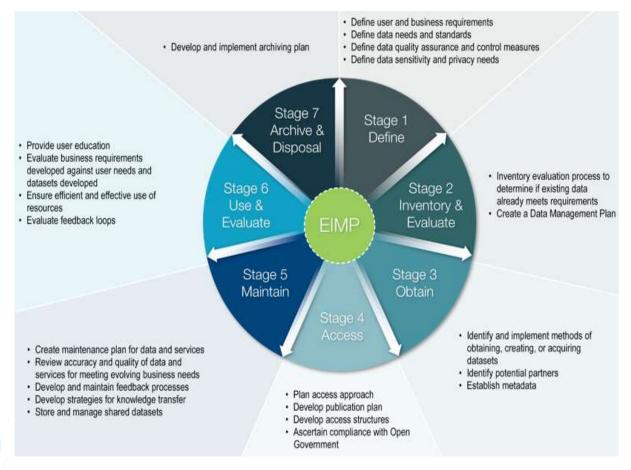
No changes to the A-16 Geospatial Data Lifecycle Stages between the 2015 and 2017 LMA assessments





## 2017 LMA Basic Assumptions- Benchmarks

No changes to the Lifecycle Stage Benchmarks between the 2015 and 2017 LMA assessments





## 2017 LMA Basic Assumptions- Maturity

❖ No changes to the maturity matrix between the 2015 and 2017 LMA assessments

Maturity	Maturity Characteristics for All Lifecycle Stages		
Optimized; Established Rank = 5	Dataset meets virtually all business needs of all users. The dataset is considered authoritative by owners and secondary users. It is curated across all stages of the approved lifecycle. Future needs are defined for both the primary owner and secondary users on a regular basis and resources for addressing both current and future business requirements are available.		
Mature; Consistent Rank = 4	Dataset meets all the business needs of the primary owner and most of the secondary users. The dataset is curated and used as an authoritative resource by the primary owner and secondary users. Future needs are being identified and steps are planned to address these. All stages are supported and reviewed on a recurring basis. The dataset is well managed in relation to the approved lifecycle.		
Managed; Predictable Rank = 3	Dataset meets a significant number of the business needs of the primary owner and is widely used by secondary users. Benchmark activities are occurring in at least four of the approved lifecycle stages. Management practices in relation to the approved lifecycle is moderate but consistent. Dataset is integrating changing business requirements in lifecycle stages impacting overall maturity.		
Transition; Transformation Rank = 2	Dataset meets business needs of the primary owner and has moderate use by secondary users.  Benchmark activities are occurring in at least three stages. Efforts to integrate funding, include partners, and obtain data are not supported in a sustained manner. Management practices in relation to the stages of the approved lifecycle is limited.		
Planned; Initial Development Rank = 1	Dataset in initial planning or limited in meeting business needs of the primary owner. Benchmark activities in the approved lifecycle are just starting to consider secondary uses, Partners/stakeholders involvement is being defined and developed to support additional dataset uses. Dataset development is in a very early stage. Minimal or limited management against the benchmarks in the approved lifecycle.		
No Activity Rank = 0	Dataset not developed or meets project/local business needs of the primary owner. Secondary, additional uses, or partners/stakeholders were not considered. Dataset is not recognized as authoritative data or is part of a similar dataset. Not managed to any of the benchmarks in the approved lifecycle.		



## Lifecycle Maturity Assessment- Overview

- 20 Maturity Ranked Questions
  - ❖ 12 Justification Questions to support maturity responses
  - 2 Feedback Questions to determine number of personnel and hours needed for LMA and feedback on assessment
- All Maturity Ranked Questions Required
  - ❖ Justification responses required if either:
    - Question response ranked 0 (text based justification)
    - Question response ranked 1-5 (pick-list justification questions)
    - Other response selected (text based justification)
- To keep questions aligned with 2015 LMA, made adjustments - starting 2017 LMA with question zero "0"
- How to Calculate Maturity updated for 2017

Use <u>2015 LMA NGDA Dataset submission</u> to complete 2017



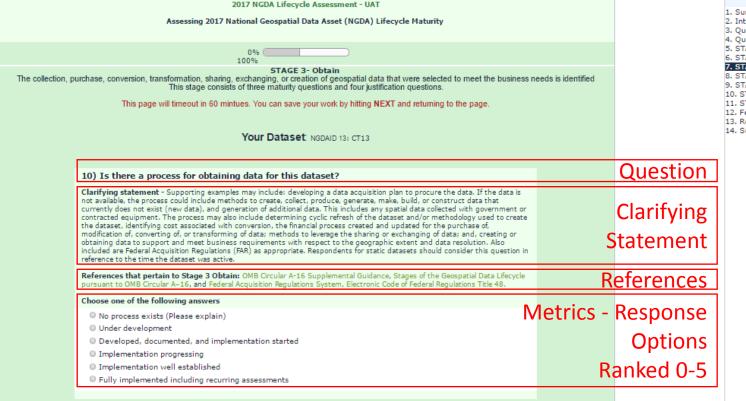
## Lifecycle Maturity Assessment- Components

- 1. <u>Questions:</u> An interagency team developed a series of benchmark activities associated with each lifecycle stage that must be completed for the dataset to reach full maturity.
- **2.** <u>Clarifying statements:</u> For each question, there are examples and supporting references that may be associated with the successful completion of the question.
- 3. <u>Metrics:</u> Each question has a series of metrics in the form of response options from which the Dataset Manager will need to select. Response options reflect each level of maturity from 0 to 5



## Lifecycle Maturity Assessment- Components

### Example:





- 1. Survey Navigation / Help
- 2. Introduction
- 3. Questions Overview
- 4. Questions for All Stages
- 5. STAGE 1- Define/Plan
- 6. STAGE 2- Inventory/Evaluate

### 7. STAGE 3- Obtain

- 8. STAGE 4- Access
- 9. STAGE 5- Maintain
- 10. STAGE 6- Use/Evaluate 11. STAGE 7- Archive
- 12. Feedback Questions
- 13. Review and Approval
- 14. Submit





# 2017 Lifecycle Maturity Assessment Questions



## LMA Questions- All Stages

- 0) Part 1: Is this dataset considered "active" or "static"?
- 0) Part 2: For the 2017 LMA, please provide what time frame the assessment includes?
- 0) Part 3: Do you have a process to evaluate the dataset to determine if it continues to meet the criteria established for an National Geospatial Data Asset (NGDA)?



## LMA Questions- All Stages

- 1) Is there a recurring process to obtain funding for all lifecycle stages of this dataset?
  - 1.a) To justify your response to Question 1, what is the primary funding source for your NGDA?
  - 1.b) To further justify your answer to Question 1, do you have secondary source(s) of funding?
  - 1.b.1) What are the other source(s) of funding for your NGDA?



## LMA Questions- All Stages

- 2) Is there a process in place to ensure that open government and transparency guidelines are followed in all lifecycle stages for this dataset?
- 3) Are there processes and tools in place so that staff are sufficiently knowledgeable to ensure the continuity of the dataset for all stages of the lifecycle, especially during staffing transitions?



## LMA Questions- Stage 1: Define/Plan

- 4) Are business requirements defined and formalized?
- 5) Are there processes in place to ensure partners and stakeholders are involved in requirements collection?
  - 5.a) To justify your response to Question 5, which external partners and stakeholders are involved in the requirements collection process?



## LMA Questions- Stage 1 : Define/Plan

- 6) Is there a quality assurance process for the dataset?
  - 6.a) To justify your response to Question 6, what methods are used to develop and complete quality assurance assessments?
- 7) Has an assessment been done to evaluate the sensitivity, privacy, and confidentiality of this dataset?
- 8) Are defined data standards used in collecting, processing, and/or rendering the data?
  - 8.a) To justify your response to Question 8, what types of data standards are used in collection, processing, and/or rendering the data?

    Bold = Maturity Ranked Questions

## LMA Questions- Stage 2: Inventory/Evaluate

9) Is an assessment done to determine if data necessary to meet requirements already exists from other sources (either within or outside the agency) before collecting or acquiring new data?

9.a) To justify your response to Question 9, what actions are performed to determine if data already exists from other sources?



## LMA Questions- Stage 3: Obtain

10) Is there a process for obtaining data for this dataset?

10.a) To justify your response to Question 10, what actions are performed to obtain data?

11) Is the metadata in an FGDC-endorsed geospatial metadata standard, follows the NGDA Metadata Guidelines, and is published?



## LMA Questions- Stage 3: Obtain

- 12) Part 1: Is there a business process in place to determine the geographic coverage of the dataset and establish milestones to track progress towards completion?
- 12) Part 2: Based on the business requirements, what is the estimated completeness of the geographic coverage?
  - 12.a) To justify your response to Question 12 Part 2, what is the geographic coverage of the dataset as defined by the business requirements?



## LMA Questions- Stage 4: Access

# 13) Do you provide users access to the data in a digital machine-readable format?

13.a) To justify your response to Question 13, what types of digital machine-readable formatted web services or data download services are available for this dataset?



## LMA Questions- Stage 5: Maintain

- 14) Is there a maintenance process in place for this dataset?
- 15) Is there a quality assurance/quality control (QA/QC) process as part of this dataset's maintenance?
- 16) Is there a process to determine if the dataset meets user needs?



## LMA Questions- Stage 6: Use/Evaluate

- 17) Is there a process to provide users information on how to evaluate and properly use the dataset?
- 18) Do the business processes and management practices include an assessment of changing technology?



## LMA Questions- Stage 7: Archive

### 19) Is there an archiving appraisal process for the dataset?

19.a) To justify your response to Question 19, where is digital data being archived as determined by your appraisal process outcome?

19.b) To justify your response to Question 19, where is printed data being archived as determined by your appraisal process outcome?



## LMA Questions- Feedback

20) What is the total number of personnel and estimated aggregate amount of time required for gathering and entering information to complete the LMA for this NGDA?

21) Please provide any other comments you have about the NGDA Lifecycle Maturity Assessment:





# 2017 Lifecycle Maturity Assessment Online Tool

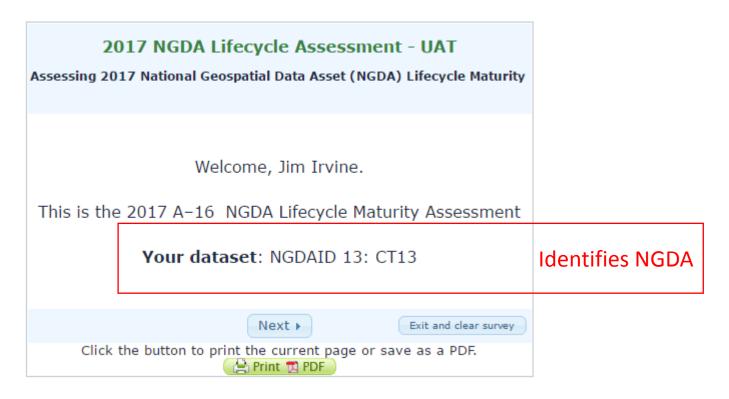


- Uses LimeSurvey
- Available online for easy information capture and reporting
- Each NGDA Dataset Manager will receive a token for each individual NGDA Dataset (can be multiple tokens)

2017	NGDA Lifecycle	Assessment - DRAFT	
Assessing 2017 Nation	al Geospatial [	Data Asset (NGDA) Lifecycle Matu	rity
	d a tokén, plea	need a valid token to participate. ase enter it in the box below and inue.	click
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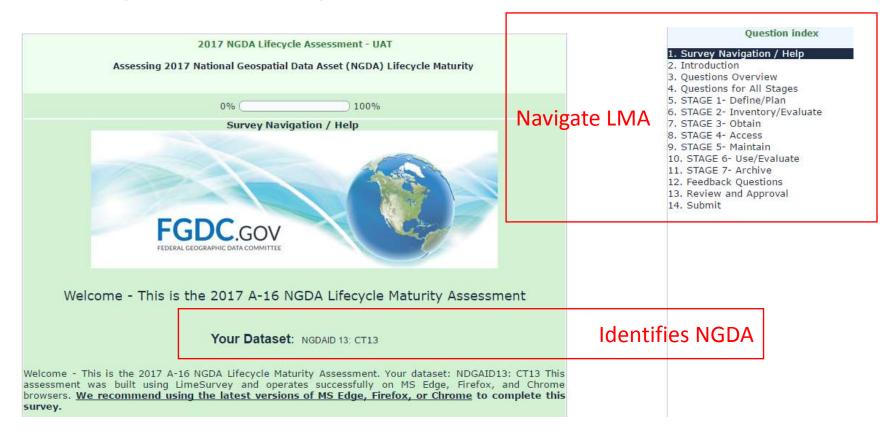


Each NGDA Dataset identified with Dataset Manager as part of the online assessment





### ❖ Navigate LMA on Right





### Typical LMA Maturity Ranked Question

2017 NGDA Lifecycle Assessment - UAT				
Assessing 2017 National Geospatial Data Asset (NGDA) Lifecycle Maturity				
0% 100%				
STAGE 3- Obtain  The collection, purchase, conversion, transformation, sharing, exchanging, or creation of geospatial data that were selected to meet the business needs is identified  This stage consists of three maturity questions and four justification questions.				
This page will timeout in 60 mintues. You can save your work by hitting NEXT and returning to the page.				
Your Dataset: NGDAID 13: CT13				

10) Is there a process for obtaining data for this dataset?	Question	
Clarifying statement - Supporting examples may include: developing a data acquisition plan to procure the data. If the data is not available, the process could include methods to create, collect, produce, generate, make, build, or construct data that currently does not exist (new data), and generation of additional data. This includes any spatial data collected with government or contracted equipment. The process may also include determining cyclic refresh of the dataset and/or methodology used to create the dataset, identifying cost associated with conversion, the financial process created and updated for the purchase of, modification of, converting of, or transforming of data; methods to leverage the sharing or exchanging of data; and, creating or obtaining data to support and meet business requirements with respect to the geographic extent and data resolution. Also included are Federal Acquisition Regulations (FAR) as appropriate. Respondents for static datasets should consider this question in reference to the time the dataset was active.		Clarifying Statement
References that pertain to Stage 3 Obtain: OMB Circular A-16 Supplemental Guidance, Stages of the Geospatial Data Lifecycle pursuant to OMB Circular A-16, and Federal Acquisition Regulations System, Electronic Code of Federal Regulations Title 48.		References
Choose one of the following answers  No process exists (Please explain) Under development Developed, documented, and implementation started Implementation progressing Implementation well established Fully implemented including recurring assessments		- Response Options Ranked 0-5



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### 8. STAGE 4- Access

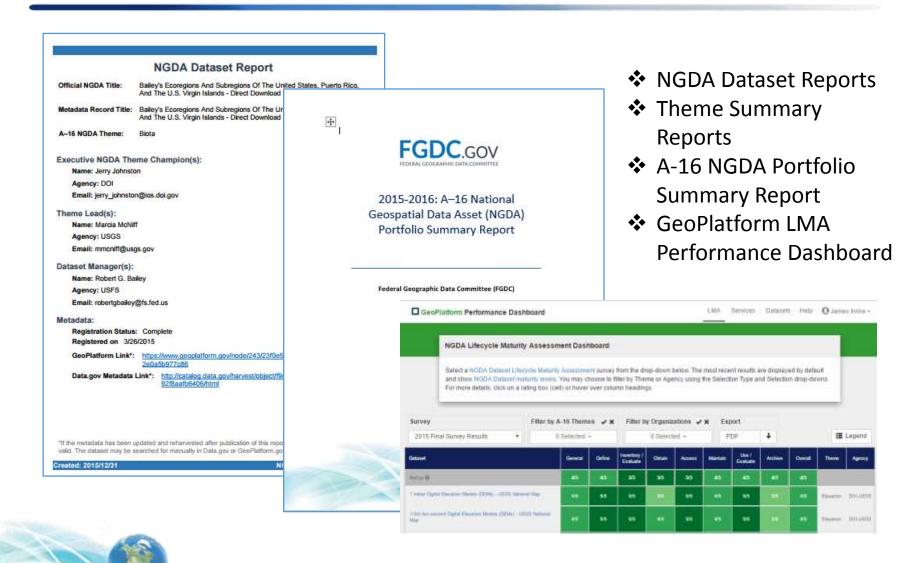
- 9. STAGE 5- Maintain
- 10. STAGE 6- Use/Evaluate
- 11. STAGE 7- Archive
- 12. Feedback Questions
- 13. Review and Approval
- 14. Submit

### Review and Submittal





## Lifecycle Maturity Assessment- Output



## Next Steps

- Training (select one):
  - **❖** May 3 10-11:30 ET

Dial-in: 703.648.4848 or 855.547.8255; Code 14602#

WebEx:

https://usgs.webex.com/usgs/j.php?MTID=md21e06852fdc52ce199e82fe24f7a300

❖ May 4 1-3 PM ET

Dial-in: 703.648.4848 or 855.547.8255; Code 14602#

WebEx:

https://usgs.webex.com/usgs/j.php?MTID=mfd77a943149b7d9b9b3f01e067fb0da4

- LMA Timeframe: Open May 8, 2017 to Aug 4, 2017
- LMA Analysis and NGDA Reports: Fall 2017

